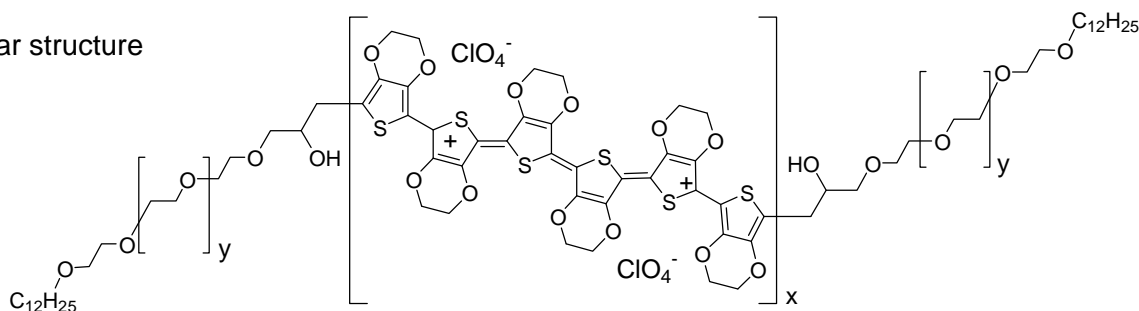


Fact sheet for **ÆDOTRON™-C3** dispersion, 0.7% in nitromethane

Molecular structure



Chemical Identity

Tri-block copolymer of perchlorate-doped poly(2,3-dihydrothieno(3,4-b)-1,4-dioxin) [also known as PEDOT or poly(3,4-ethylenedioxythiophene)] and lauryl-terminated polyethylene glycol (PEG).

Bulk conductivity

10-60 S/cm

Typical surface resistance of film

600-3000 Ω/□ @ 70-85% Transmittance

Composition

90-95 (wt)% nitromethane
4-8 (wt)% acetonitrile
0.0-0.3 (wt)% propylene glycol
0.1-0.7 (wt)% proprietary processing additive
0.2-0.7 (wt)% **ÆDOTRON™-C3** polymer

Form

Liquid dispersion

Total solid content of dispersion

0.4-0.9 (wt.)%

Particle size of dispersion

200-600 nm

Typical Usage

Conducting films, anti-static layers, transparent electrodes for electroluminescent lamps.

Application Guide

Store this product at room temperature (do not refrigerate or freeze). Some settling will normally occur. Agitate, sonicate, and filter prior to use. A plug of glass wool in a pipette can be used for easy filtration. The shelf life of this product will vary depending on how it is stored and handled. Product should be discarded if heavy aggregation occurs, or if sonication / filtering are inadequate to produce a good casting solution. Nitromethane can be used to cast robust films on many polymeric substrates, but should be tested in each case. Thin transparent films are typically spun at 1000 RPM or higher speeds, but more conducting films can be obtained at lower speeds or with application of additional spin cast layers.

Features and Benefits

The copolymer structure renders the conducting polymer PEDOT highly dispersible in organic solvents. Nitromethane has a suitable volatility for spin coating.